

1051. **Sastry, G. and Singh, Gurmel. 1993.** Catchment area-pond size relationship for water harvesting and reuse of runoff water in Doon Valley. *Indian J. Soil Conserv.* 21(2): 40-45.

The paper deals with water harvesting, storage and recycling under Doon Valley conditions. It is indicated that of the total monsoon rainfall, 16.9 per cent can be harvested from treated agricultural watershed into farm pond. Major sources of water loss comprise storage and overflow from pond which account for nearly 118 and 40 mm, respectively. Properly designed reservoir capacity and suitable lining would minimize the losses. The catchment area-pond size relationship works out to 1.0 ha-m capacity for every 6 and 9 ha of catchment area for lined and unlined farm ponds, respectively. Supplemental irrigation of 5 cm at presowing and CRI stage and 5 cm each (total 10 cm) at presowing and CRI stage to wheat could be effected to 80, 50 and 25 per cent of catchment area resulting in grain yield of 3.14, 2.61 and 2.45 t/ha, respectively comparable to control yield of 1.9 t/ha. Presowing stage is found to be the most favourable stage for supplemental irrigation for wheat crop.